

# Archives of Virology

Volume 109 1989

ISSN 0304-8608

Springer-Verlag Wien



New York

---

# Archives of Virology

---

## Editorial Board

J. W. Almond, Reading  
D. R. Lowy, Bethesda  
F. A. Murphy, Atlanta  
(Editor-in-Chief)  
C. Scholtissek, Giessen

A. Sugiura, Tokyo  
A. Vaheri, Helsinki  
M. H. V. Van Regenmortel,  
Strasbourg  
D. O. White, Melbourne

## Special Issues

C. H. Calisher, Fort Collins  
H.-D. Klenk, Marburg

## Advisory Board

D. J. Alexander,  
New Haw, Weybridge  
Y. Becker, Jerusalem  
G. L. Belsham, Woking  
R. W. Bingham, Edinburgh  
K. Bister, Köln  
E. De Clercq, Leuven  
A. C. Cusic, Baltimore, Md.  
J. M. Dalrymple, Frederick, Md.  
G. Darai, Heidelberg  
F. Deinhardt, München  
U. Desselberger, Glasgow  
N. J. Dimmock, Coventry  
H. J. Eggers, Köln  
H. J. Field, Cambridge  
B. N. Fields, Boston, Mass.  
H. Gelderblom, Berlin  
W. Gerlich, Göttingen  
Y. Ghendon, Moscow  
A. J. Gibbs, Canberra  
L. Gissmann, Heidelberg  
R. W. Goldbach, Wageningen

O. Haller, Zürich  
R. I. Hamilton, Vancouver  
I. H. Holmes, Parkville, Vic.  
M. C. Horzinek, Utrecht  
Y. Hou, Beijing  
P. M. Howley, Bethesda, Md.  
R. Hull, Norwich  
W. K. Joklik, Durham, N.C.  
A. P. Kendal, Atlanta, Ga.  
A. M. Q. King, Pirbright  
D. W. Kingsbury, Bethesda, Md.  
H.-D. Klenk, Marburg  
U. Koszinowski, Ulm  
Ch. Kunz, Wien  
E. Kurstak, Montreal  
H. L. Lipton, Chicago, Ill.  
D. K. Lvov, Moscow  
B. W. J. Mahy, Pirbright  
R. Marusky, Edmonton  
V. ter Meulen, Würzburg  
T. Mikami, Tokyo  
C. A. Mims, London

P. Morgan-Capner, Preston  
R. Mori, Fukuoka  
A. Nomoto, Tokyo  
E. Norrby, Stockholm  
I. Ørstavik, Oslo  
P. Palese, New York, N.Y.  
S. Patterson, Harrow  
U. Pettersson, Uppsala  
W. Plowright, Goring-On-Thames,  
Berks.  
W. E. Rawls, Hamilton  
D. J. Rowlands, Woking  
G. Siegl, Bern  
J. Storz, Baton Rouge, La.  
M. J. Studdert, Parkville, Vic.  
J. Svoboda, Praha  
D. A. J. Tyrrell, Salisbury, Wilts.  
S. Urasawa, Sapporo  
J. Vilček, New York, N.Y.  
S. Wain-Hobson, Paris  
Y. Watanabe, Isehara  
H. A. Wood, Ithaca, N.Y.

Editorial Assistant: W. Tuma, Wien

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions including microform is transferred to the publisher. For copyright regulations and for further information, see the detailed "Instructions to Authors".

## Contents

<b>Abe, Y.</b> , s. Takeshima, H.	
<b>Alexander, D. J.</b> , <b>Manvell, R. J.</b> , <b>Collins, M. S.</b> , <b>Brockman, S. J.</b> , <b>Westbury, H. A.</b> , <b>Morgan, I.</b> , <b>Austin, F. J.</b> : Characterization of paramyxoviruses isolated from penguins in Antarctica and sub-Antarctica during 1976-1979 (Brief Report)...	135
<b>Al-Nakib, W.</b> , s. Dearden, C.	
<b>Andries, K.</b> , s. Dearden, C.	
<b>Austin, F. J.</b> , s. Alexander, D. J.	
<b>Bartha, A.</b> , s. Horner, G. W.	
<b>Ben-Nathan, D.</b> , <b>Lustig, S.</b> , <b>Feuerstein, G.</b> : The influence of cold or isolation stress on neuroinvasiveness and virulence of an attenuated variant of West Nile virus	1
<b>Benkö, M.</b> , s. Horner, G. W.	
<b>Bishop, R.</b> , s. Tzipori, S.	
<b>Black, Darla</b> , s. Eberle, R.	
— s. Hilliard, Julia K.	
<b>Bolmstedt, A.</b> , s. Hemming, Anna	
<b>Brockman, S. J.</b> , s. Alexander, D. J.	
<b>Bülow, V. von</b> , s. Gelderblom, H.	
<b>Calisher, C. H.</b> , s. Zeller, H. G.	
<b>Castro, A. E.</b> , s. Shih, L. M.	
<b>Chen, H.-Y.</b> , s. Ho, Ch.-K.	
<b>Christianson, K. K.</b> , <b>Ingersoll, J. D.</b> , <b>Landon, R. M.</b> , <b>Pfeiffer, N. E.</b> , <b>Gerber, J. D.</b> : Characterization of a temperature sensitive feline infectious peritonitis co- ronavirus .....	135
<b>Christianson, W. T.</b> , s. Kim, H. S.	
<b>Cleator, G. M.</b> , <b>Lewis, A. G.</b> , <b>Klapper, P. E.</b> , <b>Sharma, H. L.</b> , <b>Smith, A. M.</b> : HM-PAO- imaging and herpes encephalitis (Brief Report) .....	263
<b>Collins, M. S.</b> , s. Alexander, D. J.	
<b>Cropp, C. B.</b> , s. Zeller, H. G.	
<b>Dearden, C.</b> , <b>Al-Nakib, W.</b> , <b>Andries, K.</b> , <b>Woestenborghs, R.</b> , <b>Tyrrell, D. A. J.</b> : Drug resistant rhinoviruses from the nose of experimentally treated volunteers ...	71
<b>Digoutte, J.-P.</b> , s. Zeller, H. G.	
<b>Dyall-Smith, M. L.</b> , s. Huang, J.	
<b>Eberle, R.</b> , <b>Black, Darla</b> , <b>Hilliard, Julia K.</b> : Relatedness of glycoproteins expressed on the surface of simian herpes-virus virions and infected cells to specific HSV glycoproteins .....	233
— s. Hilliard, Julia K.	
<b>Farmer, J. L.</b> , <b>Irace, H. E.</b> , <b>Maaba, Marieta</b> , <b>Heine, K.</b> : Analysis of cell-associated recombinant hepatitis B surface antigen by flow cytometry .....	223
<b>Feuerstein, G.</b> , s. Ben-Nathan, D.	
<b>Flodby, P.</b> , s. Hemming, Anna	

<b>Gelderblom, H., Kling, S., Lurz, R., Tischer, I., Bülow, V. von:</b> Morphological characterization of chicken anaemia agent (CAA) (Brief Report) .....	115
<b>Gerber, J. D.,</b> s. Christianson, K. K.	
<b>Gidlund, M.,</b> s. Hemming, Anna	
<b>Gopinathan, K. P.,</b> s. Mohan, K. S.	
<b>Heine, K.,</b> s. Farmer, J. L.	
<b>Hemming, Anna, Bolmstedt, A., Flodby, P., Lundberg, L., Gidlund, M., Wigzell, H., Olofsson, S.:</b> Cystein 402 of HIV gp 120 is essential for CD4-binding and resistance of gp 120 to intracellular degradation (Brief Report) .....	269
<b>Hilliard, Julia K., Black, Darla, Eberle, R.:</b> Simian alphaherpesviruses and their relation to the human herpes simplex viruses .....	83
— s. Eberle, R.	
<b>Ho, Ch.-K., Ou, B.-R., Wang, Ch. Y., Chen, H.-Y., Kuwata, T.:</b> Differential modulating effects of retinoic acid on interferon antiviral activity .....	25
<b>Holmes, I. H.,</b> s. Huang, J.	
<b>Horner, G. W., Hunter, R., Bartha, A., Benkö, M.:</b> A new subgroup 2 bovine adenovirus proposed as the prototype strain 10 (Brief Report) .....	121
<b>Huang, J., Nagesha, H. S., Dyall-Smith, M. L., Holmes, I. H.:</b> Comparative sequence analysis of VP7 genes from five Australian porcine rotaviruses .....	173
<b>Hunter, R.,</b> s. Horner, G. W.	
<b>Ingersoll, J. D.,</b> s. Christianson, K. K.	
<b>Inokoshi, J.,</b> s. Takeshima, H.,	
<b>Irace, H. E.,</b> s. Farmer, J. L.	
<b>Joo, H. S.,</b> s. Kim, H. S.	
<b>Karabatsos, N.,</b> s. Zeller, H. G.	
<b>Kim, H. S., Christianson, W. T., Joo, H. S.:</b> Pathogenic properties of encephalomyocarditis virus isolates in swine fetuses .....	51
<b>Klapper, P. E.,</b> s. Cleator, G. M.	
<b>Kling, S.,</b> s. Gelderblom, H.	
<b>Kobayashi, N., Lintang, I. C., Urasawa, T., Taniguchi, K., Saniel, M. C., Urasawa, S.:</b> Unusual human rotavirus strains having subgroup I specificity and "long" RNA electropherotype .....	11
<b>Kuwata, T.,</b> s. Ho, Ch.-K.	
<b>Landon, R. M.,</b> s. Christianson, K. K.	
<b>Lee, T.,</b> s. Takeshima, H.	
<b>Lewis, A. G.,</b> s. Cleator, G. M.	
<b>Lintang, I. C.,</b> s. Kobayashi, N.	
<b>Lundberg, L.,</b> s. Hemming, Anna	
<b>Lurz, R.,</b> s. Gelderblom, H.	
<b>Lustig, S.,</b> s. Ben-Nathan, D.	
<b>Maaba, Marieta,</b> s. Farmer, J. L.	
<b>Manvell, R. J.,</b> s. Alexander, D. J.	
<b>Mohan, K. S., Gopinathan, K. P.:</b> Characterization of viral proteins of <i>Oryctes</i> baculovirus and comparison between two geographical isolates .....	207
<b>Mohanty, S. B.,</b> s. Panigrahi, P.	
<b>Montenaro, J.,</b> s. Tzipori, S.	
<b>Morgan, I.,</b> s. Alexander, D. J.	
<b>Murphy, F. A.,</b> s. Zeller, H. G.	
<b>Murthy, M. R. N.,</b> s. Savithri, H. S.	

<b>Nagesha, H. S.</b> , s. Huang, J.	
<b>Namiki, M.</b> , s. Takeshima, H.	
<b>Neumann-Haefelin, D.</b> , s. Schweizer, M.	
<b>Olofsson, S.</b> , s. Hemming, Anna	
<b>Omura, S.</b> , s. Takeshima, H.	
<b>Ou, B.-R.</b> , s. Ho, Ch.-K.	
<b>Panigrahi, P., Mohanty, S. B.</b> : Defective transport of hemagglutinin-neuraminidase glycoprotein of bovine parainfluenza-3 virus in interferon treated cell (Brief Report) .....	125
<b>Pfeiffer, N. E.</b> , s. Christianson, K. K.	
<b>Renne, R.</b> , s. Schweizer, M.	
<b>Rybicki, E. P.</b> , s. Williamson, C.	
<b>Saniel, M. C.</b> , s. Kobayashi, N.	
<b>Savithri, H. S., Suryanarayana, S., Murthy, M. R. N.</b> : Structure-function relationships of icosahedral plant viruses (Brief Review) .....	153
<b>Schweizer, M., Renne, R., Neumann-Haefelin, D.</b> : Structural analysis of proviral DNA in simian foamy virus (LK-3)-infected cells .....	103
<b>Sharma, H. L.</b> , s. Cleator, G. M.	
<b>Shih, L. M., Zee, Y. C., Castro, A. E.</b> : Comparison of genomes of malignant catarrhal fever-associated herpesviruses by restriction endonuclease analysis (Brief Report) .....	145
<b>Shope, R. E.</b> , s. Zeller, H. G.	
<b>Smith, A. M.</b> , s. Cleator, G. M.	
<b>Suryanarayana, S.</b> , s. Savithri, H. S.	
<b>Suzuki, Y.</b> , s. Takeshima, H.	
<b>Takeshima, H., Namiki, M., Inokoshi, J., Lee, T., Abe, Y., Suzuki, Y., Omura, S.</b> : Stable expression of hepatitis B virus genome in a primate kidney cell .....	35
<b>Taniguchi, K.</b> , s. Kobayashi, N.	
<b>Tischer, I.</b> , s. Gelderblom, H.	
<b>Tyrrell, D. A. J.</b> , s. Dearden, C.	
<b>Tzipori, S., Unicomb, L., Bishop, R., Montenegro, J., Vaelioja, L. M.</b> : Studies on attenuation of rotavirus. A comparison in piglets between virulent virus and its attenuated derivative .....	197
<b>Unicomb, L.</b> , s. Tzipori, S.	
<b>Urasawa, S.</b> , s. Kobayashi, N.	
<b>Urasawa, T.</b> , s. Kobayashi, N.	
<b>Vaelioja, L. M.</b> , s. Tzipori, S.	
<b>Wang, Ch. Y.</b> , s. Ho, Ch.-K.	
<b>Westbury, H. A.</b> , s. Alexander, D. J.	
<b>Wigzell, H.</b> , s. Hemming, Anna	
<b>Williamson, C., Rybicki, E. P.</b> : A comparative study on the cell-free translation of the genomic RNAs of two aphid picorna-like viruses .....	59
<b>Woostenborghs, R.</b> , s. Dearden, C.	
<b>Zee, Y. C.</b> , s. Shih, L. M.	
<b>Zeller, H. G., Karabatsos, N., Calisher, C. H., Digoutte, J.-P., Cropp, C. B., Murphy, F. A., Shope, R. E.</b> : Electron microscopic and antigenic studies of uncharacterized viruses. III. Evidence suggesting the placement of viruses in the family <i>Reoviridae</i> .....	253